

CREATION DATE: 05/28/2007

REVISION DATE: 02/24/2015

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

a) Product Name: DINP(Diisononyl Phthalate)

b) Recommended use of the chemical and restrictions on use:

- Recommended use : Cables, PVC Calenderings/Leathers, Casting Leather
- Restrictions on use : no data available

c) Manufacturer/Supplier/Distributor Information

- Name: LG Chem, Ltd.
- Address
Ulsan Plant : 388, MANGYANG-RI, ONYANG-EUP, ULJU-GUN, ULSAN-CITY 689-901, KOREA
- Emergency phone number : 82-52-231-4061

SECTION 2 HAZARDS IDENTIFICATION

a) Hazard/Risk Classification

- Not classified

b) Label elements including precautionary statements

- Symbol : no symbol
- Signal Word : no signal word
- Hazard/Risk Statement : May cause long lasting harmful effects to aquatic life
- Precautionary Statement : no data available

c) Other Hazard/Risk which are not included in the classification criteria

(e.g. dust explosion hazard):

- NFPA RATINGS (SCALE 0-4): HEALTH=1 FIRE=1 REACTIVITY=0

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name Other name CAS number or Other identification number Content (%)

Chemical Name	Trade name/Synonym	CAS number	Content(%)
Diisononyl phthalate	1,2-benzendicarboxylic acid, Di-C8-10-branched alkyl ester	68515-48-0 EU Number(EINECS): 271-090-9	100

SECTION 4 FIRST AID MEASURES

a) Eye contact:

Wash eyes immediately with large amounts of water

If easy to do, remove contact lenses.

Get medical attention if symptoms persist.

b) Skin contact:

Remove contaminated clothing and shoes immediately.

Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes).

Get medical attention if symptoms persist.

c) Inhalation:

If the patient have a consciousness and don't seizure, keep the head under hips.

According to symptoms, treat the patient supportively

Get medical attention if symptoms persist.

d) Ingestion:

Seek medical advice.

e) Indication of immediate medical attention and notes for physician :

There is no suitable antidote

According to symptoms, treat the patient supportively

SECTION 5 FIRE FIGHTING MEASURES

a) Suitable (and unsuitable) extinguishing media:

- Suitable extinguishing media : Dry chemical, carbon dioxide, water spray or regular foam
- Unsuitable extinguishing media : no data available
- Large fires : water, smog or regular foam

b) Specific hazards arising from the chemical

- Thermal decomposition products : can include toxicity and noxious gas
- Risk of fires and explosion : heat and spark can cause light fires

c) Special protective equipment and precautions for fire-fighters:

Full firefighting turn-out gear (bunker gear).

Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.

Any self-contained breathing apparatus with a full facepiece.

SECTION 6 ACCIDENTAL RELEASE MEASURES

a) Personal precautions, protective equipment and emergency procedures:

Do not touch the damaged container and organic material without suitable protection
Stand against the wind and avoid low land
Open the windows in a sealed room

b) Environmental precautions and protective procedures

- Atmosphere : no data available
- Soil : no data available
- Underwater : no data available

c) Methods and materials for containment and cleaning up:

- For Small spills:
Absorb with sand or other non-combustible material.
Collect spilled material in appropriate container for disposal.
Keep unnecessary people away, isolate hazard area and deny entry.
- For Large spills : no data available

SECTION 7 HANDLING AND STORAGE

a) Precautions for safe handling:

No special precautionary health measure should be needed under anticipated conditions of use.

b) Conditions for safe storage (including any incompatibilities):

Observe all federal, state and local regulations when storing this substance.
Store away from incompatible substances.

SECTION 8 EXPOSURE CONTROLS & PERSONAL PROTECTION

a) Control parameters (e.g. occupational exposure limit values, biological limit values):

- Domestic regulation : TWA - 5 mg/m³, STEL - 10 mg/m³
- OSHA PEL : TWA - 5mg/m³, STEL - 10mg/m³
- ACGIH TLV : TWA - 5 mg/m³
- NOISH REL : TWA - 5 mg/m³ (10hr), STEL - 10 mg/m³

b) Appropriate engineering controls:

Provide local exhaust ventilation to meet published exposure limits.
Ventilation equipment should be explosion-proof if explosive concentrations of dust, vapor or fume are present.

c) Personal protective equipment

- Respiratory protection:
Under conditions of frequent use or heavy exposure, respiratory protection may be needed.
Respiratory protection is ranked in order from minimum to maximum. Consider warning proper before use. Any dust, mist and fume respirator.
Any air-purifying respirator with a high-efficiency particulate filter.
Any powered, air-purifying respirator with a high-efficiency particulate filter.

For Unknown Concentrations or Immediately Dangerous to Life or Health : Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.

Any self-contained breathing apparatus with a full facepiece.

- Eye protection: Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.**
- Hands protection: Wear appropriate chemical resistant gloves.**
- Body protection: Wear appropriate chemical resistant clothing.**

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

- a) Appearance (physical state, color etc): colorless to pale yellow, oily liquid**
- b) Odor: almost odorless**
- c) Odor threshold: no data available**
- d) pH: 7**
- e) Melting point/freezing point: -56 F (-49 °C)**
- f) boiling point : 752 F (400 °C)**
- g) Flashing point : 415 F (213 °C)**
- h) Evaporation rate: no data available**
- i) Flammability Class(OSHA): no data available**
- j) Upper/lower flammability or explosive limits: no data available**
- k) Vapor pressure: 0.6 mmHg @ 200°C**
- l) Solubility: insolubility(water), soluble in organic solvent**
- m) Vapor density: >10**
- n) Relative density: 0.975**
- o) Partition coefficient: n-octanol/water: no data available**
- p) Auto-ignition temperature: 716 F(380 °C)**
- q) Decomposition temperature: no data available**
- r) Viscosity: 76cP(20 °C)**
- s) Formula mass: 418.62**

SECTION 10 STABILITY AND REACTIVITY

- a) Chemical stability and possibility of hazardous reactions:**
Stable under normal temperatures and pressures.
Hazardous polymerization has not been reported to occur under normal temperatures and pressures.
- b) Conditions to avoid (e.g. static discharge, shock or vibration, etc):**
May burn but does not ignite readily. Avoid contact with strong oxidizers, excessive heat, sparks or open flame.

c) Incompatible materials: no data available

d) Hazardous decomposition products:

Thermal decomposition may release toxic and/or hazardous gases.

SECTION 11 TOXICOLOGICAL INFORMATION

a) Information on the likely routes of exposure

- Inhalation

Acute Exposure : no data available

Consider the phthalate represent a low toxicity by inhalation.

Chronic exposure : no data available

- Ingestion : no data available.

- Skin contact

Acute exposure : no data available

Phthalates are not irritants to skin generally

Chronic exposure : no data available

- Eye contact : no data available

b) Health hazards information

- Acute toxicity :

Oral : LD50 2550 mg/kg Rat

Percutaneous : LD50 > 3160 mg/kg Rabbit

※ Source : International Uniform Chemical Information Database(IUCLID)
(<http://ecb.jrc.it/esis>)

- Inhalation : no data available.

- Skin corrosive/irritant: not classified

- Serious eye damage/eye irritation: not classified

- Respiratory sensitization: no data available

- Skin sensitization: not classified

- Carcinogenicity: no data available

- Germ Cell Mutagenicity : not classified

- Reproductive toxicity : not classified

experimental and comparison group is not different from generative
and occurrence in experiment using a white rat.

※ Source : IUCLID(GLP : yes)

- Specific target organ toxicity (single exposure): no data available

- Specific target organ toxicity (repeated exposure): no data available

- Aspiration hazard: no data available

SECTION 12 ECOLOGICAL INFORMATION

a) Aquatic and terrestrial ecotoxicity:

- Fishs : LC50 > 0.14 mg/l 96hr Pimephales promelas(SLP : yes)
- Crustaceans : EC50 > 0.086 mg/l 48hr Daphnia magna(GLP : yes)
- Birds : EC50 > 2.8 mg/l 96hr Selenastrum capricounutum(GLP : yes)
- ※ Source : International Uniform Chemical Information Database(IUCLID)
(<http://ecb.jrc.it/esis>)

b) Persistence and degradability:

- Persistence: log Kow 9.52
- ※ Source : Quantitative Struture Activity Relation(QSAR)
- Degradability: no data available

c) Bioaccumulative potential :

- biodegradability : > 99(%) 28day (type : aeribic)
- condenasability : no data available

d) Mobility in soil : no data available

e) Other adverse effects: no data available

SECTION 13 DISPOSAL CONSIDERATIONS

a) Disposal method: Incinerate :

Discharge, treatment, or disposal may be subject to national, state or local laws.

b) Disposal precaution (including the disposal method of contaminated container and packaging):

Discharge, treatment, or disposal may be subject to national, state or local laws.

SECTION 14 TRANSPORT INFORMATION

a) UN number: no classification

b) UN proper shipping name: N/A

c) Transport hazard class: N/A

d) Packing group (if applicable): N/A

e) Marin pollution (yes/no): N/A

f) Special precaution which a user to be aware of or needs to comply with in connection with transport or conveyance either within or outside their premises: N/A

SECTION 15 REGULATORY INFORMATION

a) Industrial Safety and Health Act: no data available

b) Toxic Chemical Control Act : no data available.

c) Dangerous Material Safety Control Act: no data available

d) Wastes Management Act: no data available

e) Other requirements in domestic and other countries: no data available

SECTION 16 OTHER INFORMATION

a) Information source and references:

International Uniform Chemical Information Database (IUCLID) : <http://ecb.jrc.it/esis>

Quantitative Structure Activity Relation(QSAR)

National Emergency Management Agency)(<http://hazmat.nema.go.kr/index.jsp>)

OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>)

EU RAR

b) Issuing date: 05/28/2007

c) Revision number and date: 9th Revision 02/24/2015

d) others: -